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ONTARIO LIVESTOCK COST-OF-PRODUCTION REPORT, 1989

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ONTARIO LIVESTOCK

COST-OF-PRODUCTION REPORT, 1989

by

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1989 ONTARIO LIVESTOCK COST-OF-PRODUCTION REPORT

INTRODUCTION

Cost-of-production budgets for beef, sheep, and swine are presented in this report. These budgets are updates of budgets from previous years. The original budgets were the results of on-farm surveys. Beef cow-calf, beef feedlot, and sheep were surveyed in 1987. Swine was surveyed in 1988.

Cost-of-production budgets are usually specific to one enterprise. They are useful in determining the profit due to the specific enterprise as compared to the total farm. Also called enterprise budgets, they are a good tool to evaluate the relative profitability of the existing enterprises on the farm, and/or new proposed enterprises the farmer may wish to start.

The studies were designed to determine revenue and cost relationships for an enterprise, as well as physical and resource information about the enterprise. The budgets are limited to the livestock portion of the total farm business. Thus only costs and revenues directly associated with the livestock enterprise were included.

Any harvested crop production, even if the produce was consumed completely by the livestock enterprise was considered as a separate enterprise. Any home grown feed consumed by the livestock enterprise was considered a cost to it and was accounted for at fair market value. Therefore land, machinery, overhead, and any other production cost due to feed crops were accounted for in the price of the feed.

METHODS AND PROCEDURES

The data collected in the original survey has been updated by adjusting each cost item according to what happened to the cost during the year represented by the budget. For the most part, costs have been updated with the use of the 'Farm Input Price Index', published each year by Statistics Canada. Revenues have been updated by indexing the average revenues from one year to the next, mainly with the use of the 'Livestock Market Review', Agriculture Canada.

Farm cooperators from across Ontario were visited during the survey year to collect the original data. A livestock enterprise balance sheet was produced from the farm balance sheet. Livestock revenues, prices, costs, and input/output quantities were taken from the farmer's record book. A computer model was used to input the operator's information, and to prepare an enterprise analysis. The computer model was designed particularly for this purpose. Cooperators were provided with a printed copy of the analysis of their farm during the farm visit and adjustments were made following a discussion. The budgets from the individual farms were used to develop an average cost-of-production budget for the survey.

REVENUES

All animals produced by the breeding herd or flock are assumed to be sold except for the replacement animals needed to replenish the herd or flock due to normal culling and death loss. The budgets were developed on an accrual basis assuming constant herd or flock size. The replacements kept for breeding are shown as a revenue at the value of a bred replacement entering the herd or flock. Cull sales are not shown. The culling of animals is represented by a cost based on the loss in value that occurs when a cull is replaced by a bred replacement entering the herd or flock. The other revenues included were those generated by tax rebates, both fuel and property tax, and by tripartite stabilization pay-outs. The budgets generated assume that all livestock are enroled in tripartite stabilization.

FEED COSTS

All feed was budgeted at fair market value, based on local feed prices given by the cooperators surveyed and adjusted to reflect the current year's prices.

The type of feed, its value and the quantities fed were attained from the cooperator. The computer model calculated the feed requirements based on the feeds used by the farmer and the National Research Council's Nutrient Requirement tables. The N.R.C. requirements were used to confirm the amount of feed needed in the feeding period and were helpful to the cooperators in allocating their feed between enterprises where necessary.

Feed costs include all home grown and purchased feeds, supplements, salt/minerals/vitamins, pasture rentals and bedding. Owned pasture was accounted for at production costs, and charged directly to the livestock enterprise.

INTEREST ON OPERATING CAPITAL

The average outstanding operating capital was calculated and interest was charged on both the debt and equity portion. The market value balance sheet generated determined the percent equity. The debt portion of operating capital was charged at 11.2 percent and the equity portion at 5.0 percent for 1988 and; at 14.0 percent on debt and 7.7 percent on equity for 1989.

OTHER CASH EXPENSES

Hired labour was charged at the actual cost for labour hired to work with the livestock, adjusted to reflect the current year's value.

Machinery costs, including fuel, repairs, and interest on investment included only that proportion directly involved in the livestock operation. Machinery use included feeding, manure clean out, pasture maintenance and truck use. The cost of spreading manure was not included as it was assumed that the value of the manure to a crop enterprise equalled the cost of spreading. The cost of machinery due to cropping was included in the price of the feed since feed was priced at fair market value. Equipment rental and custom work consisted of truck or tractor rental. The cost of trucking livestock to market was included here.

Breeding costs consisted of artificial insemination and bull/ram/boar depreciation.

Marketing charges include yardage, commission, insurance and association checkoff if applicable. The costs included were the actual charges recorded (adjusted for the current year).

TERM INTEREST

An interest rate of 11.2 percent was charged in 1988 and 14.0 percent in 1989 on the debt portion of the value of the breeding livestock, machinery, buildings and land allocated to the livestock enterprise. The opportunity cost for interest on investment for the equity portion was included at the end of the budget and was calculated at 5.0 percent in 1988 and 7.7 in 1989. This rate was used to represent the real or after inflation rate.

DEPRECIATION

Depreciation on buildings was calculated using the straight-line method and a rate of 5 percent. Both the market value and a salvage value was obtained from the farm cooperator.

Machinery compliments used in the livestock enterprises were assumed to be five years old. If machines were used for other farming operations, costs were adjusted for the proportion of time spent on the livestock enterprise. The declining balance method of depreciation was used, and a 15 percent rate to powered and a 10 percent rate to non-powered machines was applied.

GROSS MARGIN

The gross margin is the revenue (less the property tax rebate) minus the variable costs. This is the amount that the enterprise can contribute to the fixed costs.

NET ENTERPRISE INCOME

The revenue minus the total enterprise costs is the net enterprise income. This is the return to owner's equity, operator's labour, management and risk.

BUDGETS

The budgets presented in this report are updates from previous years. For beef cow-calf, beef feedlot, and sheep, updates are presented for both 1988 and 1989.

SURVEY FACTORS

The tables showing the survey factors are from the original survey. Those shown for cow-calf for example, are information from the 1987 survey. These factors have not been updated.

PERFORMANCE FACTORS

The tables showing the performance factors are based on the updated budgets, but some are also dependant on the original survey data. For example, the steer value in Table 3 is based on the updated price (1988 value) times the original size (1987 value) of the steers in the survey.

Table 1. Annual Cow-Calf Budget per Bred Cow[a], Ontario

	1988	1989
REVENUES	- $ per bred cow -	
Steers	257.12	245.07
Heifers	265.54	260.02
Fuel Tax Rebate	2.16	2.16
Property Tax Rebate	13.69	14.18
Tripartite Deficiency Payment	0.00	0.00
Total	538.51	521.43
Variable Expenses		
Feed:		
- Homegrown Feeds at F.M.V.	160.50	154.49
- Purchased Supplement	3.19	3.25
- Salt, Mineral, Vitamin	2.24	2.28
- Pasture Rental	13.06	13.45
- Bedding	12.71	11.27
Hired Labour	28.00	29.17
Fuel, Oil, and Grease	13.81	12.07
Equipment Repair and Maintenance	20.93	22.11
Equipment Rental and Custom Work	6.02	6.18
Livestock Supplies	13.55	14.81
Breeding Costs	5.07	5.34
Veterinary and Medicine	20.70	21.59
Tripartite Premiums	7.70	2.24
Marketing Charges	3.98	4.32
Miscellaneous	3.64	3.98
Interest on Operating Capital	11.53	15.52
Replacement of Cows (incl. death loss)	46.17	49.65
Total Variable Expenses	372.80	371.72
Fixed Expenses		
Electricity	4.74	5.00
Telephone	1.17	1.14
Property Taxes	13.69	14.18
Building and Fence Repair	13.12	13.85
Property Insurance	6.84	6.84
Vehicle Registration and Insurance	1.73	1.80
Term Debt Interest (cows, machinery buildings, land)	42.76	53.45
Non-Cash Expenses		
Depreciation on:		
- Machinery and Equipment	10.44	10.44
- Buildings	12.85	12.85
TOTAL ENTERPRISE COSTS	480.14	491.27
GROSS MARGIN	152.02	135.53
NET ENTERPRISE INCOME	58.37	30.16
Interest on Investment in: (equity portion)		
- Cows, Heifers and Bulls	36.80	56.67
- Machinery and Equipment	5.64	8.69
- Land and Buildings	35.44	54.58

[a] This budget is based on an average herd size of 110 bred cows.

Table 2. Cow-Calf Survey Factors[a], Ontario, 1987

	Units	Ontario
Tillable Crop Land per Bred cow	acres	0.9
Pasture Land per Bred Cow	acres	2.06
Winter Feeding Period	days	204
Calf Crop	percent	87
Calf Produced per Bred Cow	pounds	455
Weaning Weight - Steer (shrunk)	pounds	543
- Heifer (shrunk)	pounds	503
Annual Culling Rate	percent	12.5
Death Rate to Cows & Heifers	percent	1.5
Breeding Cows to Bull Ratio		36:1
Number of Farms Surveyed	#	27
Average Number of Bred Cows	#	110
Capital Turnover Ratio	years	3.70
Equity	percent	80.0
Debt Structure	percent	13.2
Current Ratio		2.5:1
Equity per Bred Cow	$	1,697
Working Capital per Bred Cow	$	83

[a] These physical factors of production were findings of the original survey, and have not been changed in the updates. The cow-calf budget updates, depend on these physical relationships from 1987.

Table 3. Cow-Calf Performance Factors[a], Ontario, Updated 1988 and 1989

	Units	1988	1989
Sale Value - Steers	$/head	585	558
- Heifers	$/head	511	500
Feed Cost per Cwt Calf Weaned	$	42	41
VALUE OF ENTERPRISE PRODUCTION - per Bred Cow	$	523	505
TOTAL COSTS per Bred Cow	$	464	475
Share of Total Costs			
Feed	percent	41.3	38.9
Other Variable Costs	percent	38.6	38.9
Term Interest	percent	9.2	11.3
Depreciation	percent	5.0	4.9
Other Fixed Costs	percent	5.9	6.0
Total	percent	100.0	100.0
Net Enterprise Income per Bred Cow	$	58.37	30.16
Gross Margin per Bred Cow	$	152.02	135.53
Break Even Revenue per Cwt. of Calf			
- Gross Margin	$	81.46	81.22
- Total Enterprise Costs	$	102.04	104.38
Cost Control Index	percent	11.2	6.0

[a] These performance factors are based on physical relationships found in the original cow-calf survey, combined with the updated budget information.

Table 4a. Beef Feedlot Budget per Hundredweight of Beef Sold[a], Ontario

	1988	1989
	- $ per Cwt of beef sold -	
REVENUES		
Steers	43.58	44.31
Heifers	26.49	26.92
Mixed Pens	19.85	20.18
Fuel Tax Rebate	0.02	0.02
Property Tax Rebate	0.02	0.02
Tripartite Deficiency Payments	6.57	1.95
Total	96.53	93.40
Variable Expenses		
Purchase of Feeder Cattle	67.23	63.01
Feed - Homegrown Feeds at F.M.V.	11.38	12.18
- Purchased Supplement	1.51	1.54
- Salt, Mineral, Vitamin	0.83	0.85
- Pasture Rental	0.17	0.18
- Bedding	0.41	0.37
Hired Labour	0.51	0.52
Fuel, Oil, and Grease	0.27	0.22
Equipment Repair and Maintenance	0.39	0.41
Equipment Rental and Custom	0.68	0.69
Livestock Supplies	0.12	0.13
Veterinary and Medicine	0.61	0.64
Tripartite Premiums	0.72	0.62
Marketing Charges	0.54	0.56
Miscellaneous	0.13	0.14
Interest on Operating Capital	3.18	4.17
Total Variable Expenses	88.68	86.23
Fixed Expenses		
Electricity	0.21	0.22
Telephone	0.04	0.04
Property Taxes	0.02	0.02
Building and Fence Repair	0.37	0.39
Property Insurance	0.24	0.24
Vehicle Registration and Insurance	0.03	0.03
Term Debt Interest (machinery, buildings and land)	0.95	1.19
Non-Cash Expenses		
Depreciation on:		
- Machinery and Equipment	0.30	0.30
- Buildings	0.45	0.45
TOTAL ENTERPRISE COSTS	91.29	89.11
GROSS MARGIN	7.83	7.15
NET ENTERPRISE INCOME	5.24	4.29
Interest on Investment in: (equity portion)		
- Machinery and Equipment	0.12	0.18
- Land and Buildings	0.46	0.71

[a] Note: This budget is based on a feedlot averaging 6,500 Cwts of beef sold per year.

Table 4b. Beef Feedlot Costs per Hundredweight of Beef Gain[a], Ontario

	1988	1989
	- $ per Cwt of beef gain -	
Variable Expenses		
Margin on Feeders versus Market Cattle	30.96	17.24
Feeds - Homegrown Feeds at F.M.V.	29.87	31.97
- Purchased Supplement	3.96	4.04
- Salt, Mineral, Vitamin	2.18	2.23
- Pasture Rental	0.45	0.47
- Bedding	1.08	0.97
Hired Labour	1.34	1.37
Fuel, Oil, and Grease	0.71	0.58
Equipment Repair and Maintenance	1.02	1.08
Equipment Rental and Custom Trucking	1.78	1.81
Livestock Supplies	0.32	0.34
Veterinary and Medicine	1.60	1.68
Tripartite Premiums	1.89	1.63
Marketing Charges	1.42	1.47
Miscellaneous	0.34	0.37
Interest on Operating Capital	8.35	10.95
Total Variable Expenses	87.27	78.20
Fixed Expenses		
Electricity	0.55	0.58
Telephone	0.10	0.11
Property Taxes	0.05	0.05
Building and Fence Repair	0.97	1.02
Property Insurance	0.63	0.63
Vehicle Registration and Insurance	0.08	0.08
Term Debt Interest { machinery	2.49	3.11
buildings, land}		
Non-Cash Expenses		
Depreciation on:		
- Machinery and Equipment	0.79	0.79
- Buildings	1.18	1.18
TOTAL ENTERPRISE COSTS	94.11	85.75
Interest on Investment in: (equity portion)		
- Machinery and Equipment	0.32	0.48
- Land and Buildings	1.21	1.87

[a] Note: This budget is based on an average feedlot producing 2,478 Cwts of gain per year.

Table 5. Beef Feedlot Survey Factors[a], 1987

	Units	Ontario
Feeding Period	days	185
Average Daily Gain	Lbs/day	2.1
Feed Efficiency Ratio (D.M. basis)		11.1
Average Amount of Gain	Lbs	394
Average Weight-In (shrunk)	Lbs	640
Average Weight-Out (shrunk)	Lbs	1,034
Average Death Loss	percent	1.2
Tillable Land per Cwt of Gain	acres	0.176
Pasture Land per Cwt of Gain	acres	0.004
Percent Equity	percent	58.0
Debt structure	percent	73.0
Current Ratio		2.1:1
Capital Turnover Ratio	years	2.17
Equity per Cwt of Gain	$	88
Working Capital per Cwt of Gain	$	52

[a] These physical factors of production were findings of the original survey, and have not been changed in the updates. The feedlot budget updates depend on these original relationships from 1987.

Table 6. Beef Feedlot Performance Factors[a], Ontario, Updated 1988 and 1989

	Units	1988	1989
Feed Costs per Cwt of Gain	$	37.54	39.68
Other Costs per Cwt of Gain	$	56.57	46.07
Average Computed Sale Value	$/head	930	945
VALUE OF ENTERPRISE PRODUCTION per Cwt of Gain	$	76.80	79.66
TOTAL COSTS per Cwt of Gain	$	94.11	85.75
Share of Total Costs			
Feed Costs	percent	39.9	46.3
Other Variable Costs	percent	52.9	44.9
Term Interest	percent	2.6	3.6
Depreciation	percent	2.1	2.3
Other Fixed Costs	percent	2.5	2.9
Total		100.0	100.0
Cost Control Index	percent	18	14
Net Enterprise Income per Cwt Sold	$	5.24	4.29
Break even Price per Cwt Sold			
- Gross Margin	$	88.66	86.21
- Total Costs	$	91.25	89.07

[a] These performance factors are based on physical relationships found in the original beef feedlot survey, combined with the updated budget information.

Table 7. Annual Sheep Budget per Bred Ewe[a], Ontario

	1988	1989
REVENUES	- $ per Bred Ewe -	
New Crop Lambs	53.35	44.89
Light Lambs	29.12	25.05
Heavy lambs	64.93	61.16
Wool	6.88	5.92
Fuel Tax Rebate	0.46	0.46
Property Tax Rebate	1.55	1.61
Tripartite Deficiency Payments	7.42	8.77
Total	163.71	147.86
Variable Expenses		
Feed - Home Grown Feeds at F.M.V.	47.35	43.21
- Vitamin and Mineral	5.02	5.12
- Salt	1.19	1.21
- Pasture Rental	2.65	2.73
- Bedding	2.81	2.49
Hired Labour	2.71	2.82
Fuel, Oil, and Grease	2.80	2.46
Equipment Repair and Maintenance	3.49	3.69
Equipment Rental and Custom	1.76	1.81
Livestock Supplies	2.80	3.06
Veterinary and Medicine	6.50	6.78
Tripartite Premiums	2.20	1.40
Marketing Charges	2.22	2.85
Miscellaneous	2.50	2.73
Interest on Operating Capital	3.17	4.28
Replacement of Ewes and Rams (including death loss)	15.21	13.06
Total Variable Costs	104.38	99.70
Fixed Expenses		
Electricity	1.83	1.93
Telephone	0.62	0.60
Property Taxes	1.55	1.61
Building and Fence Repair	4.02	4.24
Property Insurance	1.54	1.54
Vehicle Registration and Insurance	0.27	0.28
Term Debt Interest (ewes, equipment, buildings, land)	13.01	16.26
Non-Cash Expenses		
Depreciation on:		
- Machinery and equipment	1.81	1.81
- Buildings	4.08	4.08
TOTAL ENTERPRISE COSTS	133.11	132.05
GROSS MARGIN	57.78	46.55
NET ENTERPRISE INCOME	30.60	15.81
Interest on Investment in: (equity portion)		
- Ewes and rams	5.71	8.79
- Machinery and equipment	0.89	1.37
- Land and buildings	7.60	11.70

[a] This budget is based on an average flock size of 274 ewes.

Table 8. Sheep Survey Factors[a], Ontario, 1987

	Units	Ontario
Tillable Land per Bred Ewe	acres	0.57
Pasture Land per Bred Ewe	acres	0.25
Percent of Crop as - New Crops	percent	38
- Light Lambs	percent	22
- Heavy Lambs	percent	32
- Feeder Lamb	percent	9
- Replacement	percent	8
Ave. Breedings per Ewe per Year	number	1.0
Annual Culling Rate	percent	11.7
Breeding Ewes to Ram Ratio		34:1
Lambs per Ewe per Year	number	1.43
Capital Turnover Ratio	years	2.75
Equity	percent	71.0
Debt Structure	percent	18.7
Current Ratio		1.4:1
Equity per Bred Ewe	$	308
Working Capital per Bred Ewe	$	10

[a] These physical factors of production were findings of the original survey, and have not been changed in the updates. The sheep budget updates, depend on these physical relationships from 1987.

Table 9. Sheep Performance Factors[a], Ontario, Updated 1988 and 1989

	Units	1988	1989
Feed Cost per Bred Ewe	$	59.02	54.76
VALUE OF ENTERPRISE PRODUCTION per Bred Ewe	$	161.70	145.79
TOTAL ENTERPRISE COSTS per Bred Ewe	$	131.10	129.98
Share of Total Enterprise Costs			
Feed	percent	45.0	42.1
Other Variable Costs	percent	34.3	34.2
Term Interest	percent	9.9	12.5
Depreciation	percent	4.5	4.5
Other Fixed Costs	percent	6.3	6.7
Total	percent	100.0	100.0
Net Enterprise Income per Bred Ewe	$	30.60	15.81
Gross Margin per Bred Ewe	$	57.78	46.55
Break Even Revenue per Bred Ewe			
- C.O.P. Gross Margin	$	103.92	99.24
- Total Enterprise Costs	$	131.10	129.98
Cost Control Index	percent	18.9	10.8

[a] These performance factors are based on physical relationships found in the original sheep survey, combined with the updated budget information.

Table 10. Annual Swine Farrow to Finish Budget[a], Ontario, 1989

	- $ per Finished Hog -
REVENUES	
Finished Hogs Sales	98.56
Weaner and Grower Hog Sales	1.98
Value of Homegrown Replacement Gilts	2.87
Fuel Tax Rebate	0.13
Property Tax Rebate	0.92
Tripartite Deficiency Payment	30.45
Total	134.91
VARIABLE EXPENSES	
Feeds: - At Fair Market Value	76.45
- Bedding	0.29
Hired Labour	1.89
Fuel, Oil, and Grease	0.63
Equipment Repair and Maintenance	1.04
Equipment Rental and Custom Trucking	1.43
Breeding Costs	0.39
Livestock Supplies	2.03
Veterinary and Medicine	2.18
Tripartite Stabilization Premiums	3.19
Marketing Charges	1.57
Interest on Operation Capital	2.78
Replacement of Sows (incl. death loss)	2.76
Total Variable Expenses	96.63
FIXED EXPENSES	
Electricity	3.40
Telephone	0.12
Property Taxes	0.92
Building Repair and Maintenance	2.83
Property Insurance	0.88
Vehicle Registration and Insurance	0.05
Term Debt Interest (sows, equipment buildings, and land)	4.91
Non-Cash Expenses	
Depreciation on: - Equipment	0.56
- Buildings	3.16
TOTAL ENTERPRISE COSTS	113.46
GROSS MARGIN	37.36
NET ENTERPRISE INCOME	21.45
Interest on Investment in: (equity portion)	
- Sows, Gilts and Boars	0.93
- Equipment	0.37
- Land and Buildings	2.59

[a] This budget is based on an average herd size of 100 sows producing 16.75 market hogs per year. The average hog index is 104.1 and weighs 79.1 kg dressed.

Table 11. Annual Swine Farrow to Weaner Budget[a], Ontario, 1989

	- $ per Weaner -
REVENUES	
Weaner Sales	44.84
Value of Homegrown Replacement Gilts	0.78
Fuel Tax Rebate	0.06
Property Tax Rebate	0.58
Tripartite Deficiency Payment	6.81
Total	53.07
VARIABLE EXPENSES	
Feeds: - At Fair Market Value	25.30
- Bedding	0.13
Hired Labour	0.22
Fuel, Oil, and Grease	0.25
Equipment Repair and Maintenance	0.31
Equipment Rental and Custom Trucking	0.18
Breeding Costs	0.22
Livestock Supplies	0.32
Veterinary and Medicine	1.42
Tripartite Stabilization Premiums	0.00
Marketing Charges	0.77
Interest on Operation Capital	0.35
Replacement of Sows (incl. death loss)	2.94
Total Variable Expenses	32.41
FIXED EXPENSES	
Electricity	2.41
Telephone	0.15
Property Taxes	0.58
Building Repair and Maintenance	1.57
Property Insurance	0.53
Vehicle Registration and Insurance	0.03
Term Debt Interest (sows, equipment buildings, and land)	2.06
Non-Cash Expenses	
Depreciation on: - Equipment	0.45
- Buildings	1.78
TOTAL ENTERPRISE COSTS	41.97
GROSS MARGIN	20.08
NET ENTERPRISE INCOME	11.10
Interest on Investment in: (equity portion)	
- Sows, Gilts and Boars	0.59
- Equipment	0.35
- Land and Buildings	1.50

[a] This budget is based on an average herd size of 96 sows producing 17.9 weaners per sow per year.

Table 12. Annual Swine Weaner to Finish Budget[a], Ontario, 1989

	- $ per Finished Hog -
REVENUES	
Finished Hogs Sales	114.20
Fuel Tax Rebate	0.12
Property Tax Rebate	0.79
Tripartite Deficiency Payment	23.67
Total	138.78
VARIABLE EXPENSES	
Purchase of Weaner Hogs	46.60
Feeds: - At Fair Market Value	49.04
- Bedding	0.18
Hired Labour	0.23
Fuel, Oil, and Grease	0.51
Equipment Repair and Maintenance	0.56
Equipment Rental and Custom Trucking	0.65
Livestock Supplies	1.12
Veterinary and Medicine	0.72
Tripartite Stabilization Premiums	3.19
Marketing Charges	1.38
Interest on Operation Capital	1.39
Total Variable Expenses	105.57
FIXED EXPENSES	
Electricity	1.77
Telephone	0.13
Property Taxes	0.79
Building Repair and Maintenance	1.74
Property Insurance	1.29
Vehicle Registration and Insurance	0.04
Term Debt Interest (equipment, buildings, and land)	2.51
Non-Cash Expenses	
Depreciation on: - Equipment	0.32
- Buildings	2.18
TOTAL ENTERPRISE COSTS	116.34
GROSS MARGIN	32.42
NET ENTERPRISE INCOME	22.44
Interest on Investment in: (equity portion)	
- Equipment	0.22
- Land and Buildings	1.60

[a] This budget is based on an operation producing 1786 market hogs per year. The average hog index is 104.1 and weighs 79.1 kg dressed.

Table 13. Swine Survey Factors[a], Ontario, 1988

	Units	Farrow Finish	Farrow Weaning	Weaning Finish
Tillable Crop Land per Hog . .	acres	0.18	0.024	0.14
Days to Weaning (O.P.I.I.P) . .	#	35	33	
Days on Feed	#	169	47	118
Hogs Produced per Sow per Year	#	16.75	17.90	
Replacement Rate of Sows . . .	percent	41	45	
Sow to Boar Ratio		20:1	17:1	
Death Rate of Breeding Herd	percent		5.3	6.6
of Market Hogs . .	percent	4.2		6.0
Farms Surveyed	#	22	6	8
Sows in Survey Group	#	2,198	575	
Hogs in Survey Group	#	36,808	10,273	14,287
Average Size at Weaning	Kg	8	8	
Average Size at Sale - Live . .	Kg	100	25	101
- Dressed	Kg	79.1		79.1
Capital Turnover	years	1.30	1.73	1.48
Equity	percent	59	68	58
per Sow	$	1,708	1,118	
per Hog	$	101	63	66
Debt Structure	percent	27.0	13.6	27.9
Current Ratio		3:1	6:1	4:1
Working Capital Per Hog	$	37	22	38
Land Value per Acre	$	1,427	1,380	1,077

[a] These physical factors of production were findings of the original survey, and have not been changed in the updates. The swine budget updates depend on these physical relationships from 1988.

Table 14. Swine Performance Factors[a], Ontario, Updated 1989

	Units	Farrow Finish	Farrow Weaning	Weaning Finish
Revenues per Hog	$	134.91	53.07	138.78
per Sow	$	2,259.74	949.95	
Gross Margin per Hog	$	37.36	32.42	11.10
per Sow	$	625.78	580.32	
Break Even Revenue				
- Total Cost (Dressed)	$/Ckg	142.11		145.93
- Total Cost (Live)	$/hog		41.33	
- Gross Margin (Dressed)	$/Ckg	122.00		133.31
- Gross Margin (Live)	$/hog		32.35	
Feed Costs per Hog	$	76.74	25.43	49.22
VALUE OF ENTERPRISE PRODUCTION	$/hog	133.86	52.43	91.27
TOTAL COSTS per Hog	$	112.41	41.33	115.43
Share of Total Enterprise Cost				
Feed	percent	68.3	62.7	42.8
Other Variable Costs	percent	17.6	15.5	48.6
Term Interest	percent	4.4	5.0	2.2
Depreciation	percent	3.3	5.4	2.1
Other Fixed Costs	percent	6.4	11.4	4.3
Total	percent	100.0	100.0	100.0
Cost Control Index	percent	16.1	21.2	24.6

[a] These performance factors are based on physical relationships found in the original swine survey, combined with the updated budget information.

APPENDIX I

FORMULAS

1) VALUE OF ENTERPRISE PRODUCTION
= All Production Sales + Tripartite Deficiency Payments
- Purchase of Feeder animals

2) TOTAL COSTS = Total Enterprise Costs - Tax Rebate - Fuel Rebate

3) BREAK EVEN REVENUE (GROSS MARGIN)
= (Variable Expenses - Fuel Tax Rebate) / Total Units of Output

4) BREAK EVEN REVENUE PER UNIT OF OUTPUT (TOTAL COST)
= (Total Enterprise Costs - Fuel Tax Rebate - Property Tax Rebate)
/ Total Units of Output

5) CAPITAL TURNOVER RATIO = $\frac{\text{Total Enterprise Assets}}{\text{Value Enterprise Production}}$ = Years

6) COST CONTROL INDEX = $\frac{\text{Net Enterprise Income}}{\text{Value of Enterprise Production}}$ x 100

7) PERCENT EQUITY = $\frac{\text{Equity}}{\text{Total Enterprise Assets}}$ x 100

8) WORKING CAPITAL = Current Assets - Current Liabilities

9) CURRENT RATIO = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$

10) DEBT STRUCTURE = $\frac{\text{Current Liabilities}}{\text{Total Liabilities}}$ x 100

11) GROSS MARGIN = Total Revenues - Property Tax Rebate
- Total Variable Expenses